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(54) Title: HUMANIZED ANTI-TAG-72 CC49 FOR DIAGNOSIS AND THERAPY OF HUMAN TUMORS

(57) Abstract: The present disclosure provides humanized CC49 monoclonal antibodies that bind TAG-72 with high binding affinity and that are minimally immunogenic. In one embodiment, a humanized CC49 antibody includes a non-conservative amino acid substitution in a light chain complementarity determining region 3 of the CC49 antibody. In a further embodiment, the humanized CC49 antibody includes a non-conservative substitution of a first residue in a light chain complementarity determining region 3 and a substitution of a second residue in a complementarity determining region of the humanized CC49 antibody. In several of the embodiments, methods are disclosed for the use of a humanized CC49 antibody in the detection or treatment of a tumor in a subject. Also disclosed is a kit including the humanized CC49 antibody described herein.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/20367

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C07H 21/04; C07K 16/00; A61K 39/395; G01N 33/53
 US CL : 536/23.53; 435/320.1, 7.1; 530/387.1, 388.85, 391.1; 424/133.1, 156.1, 181.1
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 536/23.53; 435/320.1, 7.1; 530/387.1, 388.85, 391.1; 424/133.1, 156.1, 181.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/26394 (THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES) 11 May 2000 (11/05/00), see entire document, especially Figure 2, page 25, lines 1-11, page 14, line 15-22, page 14-19.	1, 4-19, 21-22, 32-50, 52 ----- 51, 53-54
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Y		

Further documents are listed in the continuation of Box C.

See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
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"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:
CPLUS MEDLINE BIOSIS WEST
Search terms: CC49, antibody, CDR grafted, humanized, human, LEN, TAG-72, inventor name